



AIR WORLDWIDE

CAT MODELLING

- 1** The effects of Sandy on a bank branch in Coney Island, New York
- 2** Surge damage hits a car in Long Beach, New York
- 3** An under-construction athletes' facility in Staten Island was damaged by Sandy

SANDY BILL STILL RISING

Current risk models are not set up to estimate losses for a storm like Sandy

The final numbers may be some time coming in, but last year's Superstorm Sandy now looks set to be one of the costliest wind events in US history – behind only Hurricane Katrina this century.

Sandy did not make it easy for risk modellers to assess the damage with a number of companies increasing their loss estimates as more information on the scale the catastrophe filtered in. By the end of 2012 Eqecat had doubled its insured loss estimate to between \$10bn and \$20bn from \$5bn to \$10bn.

So, why did this estimate rise so dramatically, and what accounts for the large range?

Karen Clark & Company president and chief executive Karen Clark says: "The models don't do a great job of estimating a specific, actual storm. They tend to use general formulas that apply well over a wide spread of typical or average storms, but every storm is unique.

"The models do better if it is a 'typical' Florida hurricane, like Charlie or

Andrew, with tightly wound winds in an area where we have the data, but Sandy had many nuances."

These nuances included an unusual track, as Sandy converged with two other storms to gain strength where other storms heading north might have weakened. It caused an abnormally large storm surge, and there were no hurricane deductibles as the storm was downgraded before making landfall.

Sandy also caused significant losses from business interruption (BI) and contingent business interruption (CBI) claims.

Eqecat product manager Aarti Dinesh says: "For the sort of wind speeds [that Sandy had], this event caused a lot of storm surge – usually you would expect three to five feet from a category one storm, rather than the 13 or 14 feet that Sandy caused. The storm surge was also exacerbated by the high tide."

According to RMS, almost 90% of property losses were because of storm surge – not wind.

The problem with Sandy was that its track took it down the path of complex coastlines, with rivers and harbours creating a funnelling effect that exacerbated the flooding.

RMS modelling solutions vice-president Claire Souch says: "Storm surge is very difficult [to capture] because you need very specific information."

Really worrying for (re)insurers is the lack of clarity around BI and CBI claims, which echo the losses in Japan and Thailand from 2011. Such claims appear to be a blind spot in the loss estimates provided by models.

Standard & Poor's credit analyst Dennis Sugrue says: "The diversity of policies covering BI means a generic modelling approach to loss estimates is highly problematic."

CBI presents its own set of problems and, according to Souch, it is an issue for the whole industry. She says: "We need to tackle the lack of data together and make strides to improve data collection and accuracy."

So, what has been learnt from Sandy, and will the models improve as a result? Souch says: "From our perspective, we had already seen the need for modelling storm surge. We continue to improve our models wherever possible. The Northeast US does not have that many landfalling storms, so this is a rich opportunity." ■

FURTHER READING

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